AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims

1.   (Currently Amended)   A method of authentication and authorization support for Mobile IP version 6 (MIPv6), comprising:

~~Transferring between a mobile node in a visited network and a home network of the mobile node, MIPv6-related authentication and authorization information in an authentication protocol in an end-to-end procedure transparent to the visited network over an Authentication, Authorization and Accounting (AAA) infrastructure~~

sending MIPv6-related authentication and authorization information in an authentication protocol in an end-to-end procedure between a mobile node and a home Authentication, Authorization and Accounting (AAA) server, wherein the mobile node is operating in a visited network and the home AAA server is located in a home network of the mobile node; and

forwarding by intervening AAA network nodes, the MIPv6-related authentication and authorization information unchanged between the mobile node and the home AAA server.

2.   (Previously Presented)   The method of claim 1, wherein the authentication protocol is an extended authentication protocol.

3.   (Canceled)

4.   (Currently Amended)   The method of ~~claim 3~~ claim 1, further comprising transferring the MIPv6-related information from the AAA server in the home network to a home agent.

5.   (Previously Presented)   The method of claim 1, wherein the MIPv6-related information further comprises MIPv6 configuration information.

6.   (Currently Amended)   The method of ~~claim 5~~ claim 4, wherein the MIPv6-related information is transferred over the AAA infrastructure for immediate or future establishment of a MIPv6 security association between the mobile node and the home agent.

7.   (Previously Presented)   The method of claim 5, wherein the MIPv6-related information is transferred over the AAA infrastructure for establishing a binding for the mobile node in the home agent.

8.   (Previously Presented)   The method of claim 2, wherein the extended authentication protocol is an extended Extensible Authentication Protocol (EAP) and the MIPv6-related authentication and authorization information is incorporated as additional data in the EAP protocol stack.

9.   (Previously Presented)   The method of claim 8, wherein the MIPv6-related information is transferred in at least one EAP attribute in the EAP protocol stack.

10.   (Previously Presented)   The method of claim 9, wherein the MIPv6-related information is transferred as EAP attributes of the method layer in the EAP protocol stack.

11.   (Currently Amended)   The method of claim 10, wherein the EAP attributes are EAP ~~TLV~~ Type-Length-Value (TLV) attributes.

12.   (Previously Presented)   The method of claim 9, wherein the MIPv6-related information is transferred in a generic container attribute available for any EAP method.

13.   (Previously Presented)   The method of claim 9, wherein the MIPv6-related information is transferred in a method-specific generic container attribute of the method layer in the EAP protocol stack.

14.   (Currently Amended)   The method of ~~claim1~~ claim 1, wherein the authentication protocol between the mobile node and an AAA client in the visited network is carried by a protocol selected from the group of ~~PANA~~ the Protocol for carrying Authentication for Network Access (PANA), IEEE 802.1X, and ~~PPP~~ Point-to-Point Protocol (PPP).

15.   (Currently Amended)   The method of ~~claim 3~~ claim 1, wherein the authentication protocol is carried by an AAA framework protocol application between [[the]] a AAA client in the visited network and the AAA server in the home network.

16.   (Previously Presented)   The method of claim 4, wherein the MIPv6-related information is transferred from the AAA server in the home network to the home agent in an AAA framework protocol application.

17.   (Previously Presented)   The method of claim 16, wherein the home agent is a local home agent in the visited network and the MIPv6-related information is transferred from the AAA home server to the local home agent via an AAA server in the visited network.

18.   (Currently Amended)   The method of claim 15, wherein the AAA framework protocol application is an application of a protocol selected from the group of Diameter[[,]] and RADIUS.

19.   (Currently Amended)   The method of claim 4, further comprising
    assigning, [[at]] by the home AAA ~~home network~~ server, a home agent to the mobile node; and

distributing <u>by the home AAA server to the mobile node and the home agent,</u> credential-related data for <u>establishing a</u> security association ~~establishment~~ between the mobile node and the home agent ~~from the AAA home network server to the mobile node and the home agent, respectively~~.

20. (Currently Amended)   The method of ~~claim 3~~ <u>claim 1</u>, further comprising assigning a home address to the mobile node at the AAA home network server.

21. (Currently Amended)   The method of claim 20, further comprising configuring the home address of the mobile node using [[the]] roundtrips of a selected EAP procedure.

22. (Previously Presented)   The method of claim 19, further comprising
building, at the mobile node, a home address for the mobile node using at least a portion of the address of its assigned home agent; and
transferring the home address of the mobile node from the mobile node to the AAA home network server using around trip of a selected EAP procedure.

23. (Currently Amended)   The method of claim 20, further comprising transferring the home address of the mobile node from the AAA home network server to [[the]] <u>a</u> home agent using an AAA framework protocol application.

24. (Currently Amended)   A system for authentication and authorization support for MIPv6, comprising<u>:</u>
<u>a mobile node operating in a visited network;</u>
<u>a home Authentication, Authorization and Accounting (AAA) server in a home network of the mobile node; and</u>
~~means~~ <u>intervening AAA network nodes</u> for transferring, between [[a]] <u>the</u> mobile node ~~in a visited network and a home network of the mobile node~~ <u>and the home AAA server</u>, MIPv6-related authentication and authorization information in an authentication

protocol in an end-to-end procedure ~~between a mobile node~~ transparent to the visited network ~~over an AAA infrastructure~~;

<u>wherein the intervening AAA network nodes pass the MIPv6-related authentication and authorization information unchanged between the mobile node and the home AAA server</u>.

25.   (Previously Presented)   The system of claim 24, wherein the authentication protocol is an extended authentication protocol.

26.   (Canceled)

27.   (Currently Amended)   The system of ~~claim 26~~ <u>claim 24</u>, further comprising means for further transferring <u>the</u> MIPv6-related information from the AAA server in the home network to a home agent.

28.   (Previously Presented)   The system of claim 24, wherein the MIPv6-related information further comprises MIPv6 configuration information.

29.   (Currently Amended)   The system of ~~claim 28~~ <u>claim 27</u>, wherein the means for transferring MIPv6- related information over the AAA infrastructure comprises means for immediate or future establishment of a MIPv6 security association between the mobile node and the home agent.

30.   (Previously Presented)   The system of claim 28, wherein means for transferring MIPv6-related information over the AAA infrastructure comprises means for establishing a binding for the mobile node in the home agent.

31.   (Previously Presented)   The system of claim 25, wherein the extended authentication protocol is an extended Extensible Authentication Protocol (EAP) and the MIPv6-related authentication and authorization information is incorporated as additional data in the EAP protocol stack.

32. (Previously Presented)   The system of claim 31, wherein the means for transferring the MIPv6-related information comprises at least one EAP attribute in the EAP protocol stack.

33. (Previously Presented)   The system of claim 32, wherein the means for transferring the MIPv6-related information comprises EAP attributes of the method layer in the EAP protocol stack.

34. (Currently Amended)   The system of claim 33, wherein the EAP attributes are EAP ~~TLV~~ Type-Length-Value (TLV) attributes.

35. (Previously Presented)   The system of claim 32, wherein the means for transferring the MIPv6-related information comprises a generic container attribute available for any EAP method.

36. (Previously Presented)   The system of claim 32, wherein means for transferring the MIPv6-related information comprises a method-specific generic container attribute of the method layer in the EAP protocol stack.

37. (Currently Amended)   The system of claim 24, wherein the authentication protocol between the mobile node and an AAA client in the visited network is carried by a protocol selected from the group of ~~PANA~~ the Protocol for carrying Authentication for Network Access (PANA), IEEE 802.1X, and ~~PPP~~ Point-to-Point Protocol (PPP).

38. (Currently Amended)   The system of ~~claim 26~~ claim 24, wherein the authentication protocol is carried by an AAA framework protocol application between [[the]] a AAA client in the visited network and the AAA server in the home network.

39. (Previously Presented) The system of claim 27, wherein the MIPv6-related information is transferred from the AAA server in the home network to the home agent in an AAA framework protocol application.

40. (Previously Presented) The system of claim 39, wherein the home agent is a local home agent in the visited network and the MIPv6-related information is transferred from the AAA home server to the local home agent via an AAA server in the visited network.

41. (Currently Amended) The system of claim 38, wherein the AAA framework protocol application is an application of a protocol selected from the group of Diameter[[,]] and RADIUS.

42. (Currently Amended) The system of claim 27, further comprising:
means for assigning, [[at]] by the home AAA home network server, a home agent to the mobile node; and
means within the home AAA server for distributing transmitting to the mobile node and the home agent, credential-related data for establishing a security association establishment between the mobile node and the home agent from the AAA home network server to the mobile node and the home agent, respectively.

43. (Currently Amended) The system of claim 26 claim 24, further comprising means for assigning a home address to the mobile node at the AAA home network server.

44. (Currently Amended) The system of claim 43, further comprising means for configuring the home address of the mobile node using [[the]] roundtrips of a selected EAP procedure.

45.   (Previously Presented)   The system of claim 42, further comprising:

means for building, at the mobile node, a home address for the mobile node using at least a portion of the address of its assigned home agent; and

means for transferring the home address of the mobile node from the mobile node to the AAA home network server using a roundtrip of a selected EAP procedure.

46.   (Currently Amended)   The system of claim 43, characterized by means for transferring the home address of the mobile node from the AAA home network server to [[the]] a home agent using an AAA framework protocol application.

47.   (Currently Amended)   An [[AAA]] Authentication, Authorization and Accounting (AAA) home network server for authentication and authorization support for Mobile IP version 6(MIPv6), comprising:

means for assigning a home agent to a mobile node; and

means for distributing transmitting to the mobile node and the home agent, credential-related data for establishing a security association establishment between the mobile node and the home agent to the mobile node and the home agent, respectively; and

means for sending and receiving MIPv6-related authentication and authorization information between the AAA home network server and the mobile node in the visited network in an end-to-end procedure, wherein intermediate AAA network nodes pass the MIPv6-related authentication and authorization information unchanged between the mobile node and the home AAA server.

48.   (Previously Presented)   The server of claim 47, further comprising means for assigning a home address to the mobile node.

49.   (Currently Amended)   The server of claim 48, further comprising means for configuring the home address of the mobile node using [[the]] roundtrips of a selected [[EAP]] Extensible Authentication Protocol (EAP) procedure.

50.   (Previously Presented)   The server of claim 48, further comprising means for transferring the home address of the mobile node to the home agent using an AAA framework protocol application.